# Les A. Cartier and Associates, Inc.

Plan 3 of 3

Plan for Lead Dust Mitigation and Renovation of Unoccupied Spaces (first and second floors) Lofts at Millwest 195 McGregor Street Manchester, NH 03102

Proposed Final Plan: August 11, 2015

Prepared By:

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# 1.0 Executive Summary

Les A. Cartier and Associates, Inc. (LCA) and American Environmental Testing Services, LLC (AETS) have been retained to oversee the cleaning of the dismantled metal storage units and the unoccupied spaces of the first and second floors of the north end of the Lofts at Millwest and to provide clearance dust wipes for both the metal units and the unoccupied spaces. It is the intention of the owners to develop these two floors for future residential apartments. Past sandblasting operations in these areas allowed lead dust to migrate into the occupied residential units in May of 2015, due to the lack of completely effective containment.

The purpose of part three of the plan is to assess unoccupied spaces for dust, mitigate hazards previously identified and propose a renovation plan for these spaces.

- A preliminary lead dust wipe analysis plan will consist of collecting a representative amount of samples in the unoccupied spaces and from the metal storage units that still remain onsite at the time of the sampling. This will determine the levels of lead dust that are present prior to the cleaning.
- RRP licensed personnel will construct containment structures at all entrance doorways into the unoccupied spaced on the first and second floors. All windows that are not actively undergoing lead reduction cleaning will be sealed with plastic until they are scheduled for the cleaning.
- Both the first and second floors will be placed under negative pressure during all cleaning procedures and while waiting to be cleaned. Negative air systems may be removed once clearance has been determined by AETS.
- Prior to future development plans on the first and second floor development of a Lead Exposure Hazard Reduction Plan (LEHRP) will be developed.

### 2.0 Site Description

195 McGregor St. is a 5 story multi-use mill building with 98 residential units on its north side and commercial units to the south. The building underwent renovation by sandblasting in an unoccupied area of the first floor. The lack of completely effective containment allowed lead dust to migrate into the occupied units, interior common areas and some commercial units. Dismantled metal storage units still remain on the second floor while, the first floor is relatively vacant except for a computer bank that runs the internet for the commercial tenants and a small room at the southeast end known as the data room that has all the phone/communication hookups for the commercial tenants. In addition to the first and second floors of the north end of the mill there is a small lower level unit at the southeast end of the building that is known as the Piano Room. This area is also under the order to be tested and/or cleaned.

# 3.0 Definitions of Lead Based Paint, Lead in Dust and Lead in Soil

The State of NH & U.S. Department of Housing and Urban Development (HUD) have established a definition of lead-based paint as a dried paint film that contains lead greater than 0.5% by weight when utilizing laboratory analysis or equal to greater than 1.0 mg/cm<sup>2</sup> when utilizing X-Ray Fluorescence (XRF) analysis.

The following lead in dust threshold values are utilized to determine when corrective actions are required:

SURFACE	THRESHOLD LIMIT
Floors	40 ug/ft²
Interior window sills	250 ug/ft <sup>2</sup>
Window wells (troughs)	400 ug/ft <sup>2</sup>
Exterior sills	800 ug/ft <sup>2</sup>

The NH regulation for lead in soil is 400 ppm for play areas or high contact areas and 1200 ppm for residential yards.

#### NH He-P 1600

1602.01: Definitions:

- (g) "Chewable" means a horizontal surface that protrudes more than a ½ inch and is located more than 6 inches but less then 4 feet from the ground or floor.
- (m) "Damage" means failure of a paint film or the underlying substrate that results in the paint becoming detached or is at risk of becoming detached from the substrate, including but not limited to:
- (1) Peeling, chipping, flaking, chalking, or scaling paint;
- (2) Plaster which is crumbling; or
- (3) Paint that can be removed with a fingernail.
- (t) "Friction surface" means a surface, such as a door, floor, stair or window, which is subject to abrasion, damage or deterioration with normal repeated use.
- 4.0 ECSI Lead Paint Hazard Clean Up Plan for the cleaning of the unoccupied spaces: Included in this report (Plan 3) as Appendix F

# 5.0 Dust Wipe Assessment Methodology for Unoccupied 2nd Floor

The testing plan employed was a targeted approach: Several sections of the floors were tested; representative window sills and window troughs as well as metal storage unit stacks.

### Reference from HUD Chapter 15-11:

# D. Location and Number of Clearance Dust Samples

Clearance dust samples should be taken either from specific locations near the area where the lead hazard control treatment was done, from nearby high-traffic areas (around doorways, for example), or from other areas. The clearance examiner may determine which specific site is best based on the type of treatment, visual observation, and professional judgment. The abatement contractor must not know exactly where the clearance samples will be collected. The number of clearance samples depends on whether composite or single-surface samples are collected.

# 5.1 Summary of Initial and Clearance Dust Wipes

Results for the Metal Storage Units and for each floor will be collected for clearance.

# 6.0 COMPLETION OF LEAD RISK ASSESSMENTS AND LEHRP: (SEE PLAN 1)

Following completion of the cleaning of the unoccupied spaces on the first and second floor, a renovation plan and a LEHRP plan will be developed prior to any further construction activities for approval by EPA. The LEHRP will be prepared by the risk assessor with abatement or interim control options provided. Abatement / interim control activities will be performed by appropriately trained and certified individuals following He-P 1600 rules for abatement and interim controls.

# 7.0 CLEANING AND ENCLOSURE PLAN FOR UNOCCUPIED SPACES

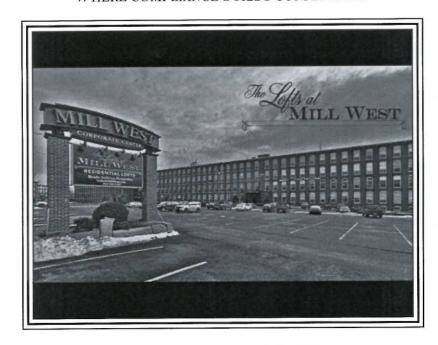
Former sandblast areas shall be properly contained according to ECSI Plan dated June 18, 2015 Located in (Plan3 – Appendix F)

### Summary

Lead dust hazards exist in on the first and second floor unoccupied spaces. The lead dust and waste black beauty residue remaining in the area will be cleaned to meet the residential standards or as close to the standard as possible given the condition of the current condition of the building materials. All cleaning of these areas will be as thorough and efficient as possible.

# APPENDIX F

# Environmental Compliance Specialists Incorporated "Where COMPLIANCE BUILDS CONFIDENCE."



LEAD PAINT HAZARD CLEAN UP FOR THE CLEAN UP OF LEAD-CONTAINING PAINT

MILL WEST 195 MCGREGOR ST MANCHESTER, NEW HAMPSHIRE PREPARED FOR:

> Brady Sullivan Properties 670 N Commercial Street Manchester, NH 03101

> > PREPARED BY:

ENVIRONMENTAL COMPLIANCE SPECIALISTS, INC. 111 ROUTE 125 KINGSTON, NEW HAMPSHIRE 03848

June 18, 2015



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#### 1.0 PURPOSE AND SCOPE

The following work plan for lead hazard reduction and cleaning of Mill West. Affected areas of Mill West will be properly cleaned utilizing RRP procedures and engineering controls for the duration of cleaning. Affected paint(s) have been identified as containing detectable levels of lead (Lead-Containing Paint, hereinafter referred to as LCP).

The affected buildings contain various levels of LCP dust and debris throughout floor spaces. It is the intent of this work to properly clean and remediate the dust and debris throughout the unoccupied areas of Mill West.

**Environmental Compliance Specialists Inc. (ECSI)** has previously conducted exposure assessment to determine if exposure to lead may occur during typical work operations in buildings identified as having LCP. Regardless of the exposure assessments conducted, ECSI will utilize PPE as outlined in section 5 of this work plan. ECSI will utilize RRP trained workers and supervisors for the duration of this cleanup.

Nothing in this work plan shall be construed to waive any requirements of the Specifications or any applicable regulations or laws affecting this work.

#### 2.0 SITE LOCATION

Mill West at 195 McGregor Street is currently utilized as commercial space and residential housing unit. A portion of this property is being renovated for housing units.

#### 3.0 GENERAL

#### 3.1 DEFINITIONS AND CONVENTIONS

- Action Level Employee exposure, without regard to use of respirators, to an airborne concentration of lead of 30 micrograms per cubic meter of air averaged over an 8 hour period.
  - 2.Contractor RRP Hazard Contractor (Environmental Compliance Specialists, Inc.)
  - 4.DF Decontamination Facility
  - 5.DOT Department of Transportation (Federal)
  - 6.GFCI Ground Fault Circuit Interrupter (for Electrical Systems)
  - 7.HEPA High Efficiency Particulate Air
  - 8.LCP as referred to in this document means paint which has been found to contain detectable levels of lead.
  - 9.SDS Safety Data Sheet
  - 10.NIOSH National Institute for Occupational Safety and Health
  - 11.NPE Negative Pressure Enclosure
  - 12.OSHA -Occupational Safety and Health Administration (Federal)
  - 13.PEL Permissible Exposure Limit, employee exposure, without regard to use of respirators, to an airborne concentration of lead of 50 micrograms per cubic meter of air averaged over an 8 hour period.
  - 14.PQP Private Qualified Person
  - 15. Poly 6-Mil Thick Polyethylene Plastic Sheeting, Fire Retardant
  - 16.QP Qualified Person
  - 17. USEPA United States Environmental Protection Agency

### 3.2 REFERENCES

The publications listed below form a part of this work plan to the extent referenced.

# AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI Z88.2 (1992) Respiratory Protection

### 2. FEDERAL REGULATIONS

29 CFR 1926.	103	Respiratory Protection
29 CFR 1926.2	21	Safety Training and Education
29 CFR 1926.3	33	Access to Employee Exposure and Medical Records
29 CFR 1926.	59	Hazard Communication
29 CFR 1926.6	62	Lead
40 CFR 261	Identifi	cation and Listing of Hazardous Waste
40 CFR 262	Standa	ards Applicable to Generators of Hazardous Waste
40 CFR 263	Standa	ards Applicable to Transporters of Hazardous Waste
40 CFR 264	Standa	ards for Owners and Operators of Hazardous Waste Treatment,

40 CFR 268 Land Disposal Restrictions

40 CFR 745 Subpart E Standards Applicable to the Removal of Lead Material

Storage, and Disposal Facilities

State of New Hampshire Lead Regulations

310 CMR 30.000 Hazardous Waste Regulations

## 4.0 ASSESSMENT OF WORKER EXPOSURE TO LCP (Completed)

### 4.1 EXPOSURE ASSESSMENT AT THE START OF WORK

At the start of any work which may disturb LCP, Environmental Compliance Specialists, Inc. (ECSI) shall perform an exposure assessment which simulates lead exposure conditions expected to be found during the work. The exposure assessment is performed to develop a baseline exposure level which is expected to be "worst case" for this project. ECSI will conduct monitoring for the duration of cleaning operations. This exposure assessment shall be performed with the assistance of the QP. The following protocol shall be used in performing the exposure assessment.

- 1. The selected work area(s) shall be representative of "worst-case" exposures to lead. Sufficient work shall be prepared to allow for a minimum of four (4) and a maximum of eight (8) hours of testing.
- 2. Workers performing the work shall wear personal protective equipment (PPE) disposable protective clothing and respiratory protection. Minimum respiratory protection shall consist of half-face, negative pressure, respirators with P100 cartridge (HEPA).
- 3. Work areas shall be identified and demarcated using standard yellow "Caution" tape or pre-approved floor signs. Non-essential personnel shall be restricted from entering the work area(s).
- 4. A NPE shall be constructed using Poly sheeting and a decontamination facility shall be available for workers. Negative air pressure systems shall also be installed within the NPE and operating 24/7.

- 5. Workers shall don PPE prior to disturbance of building components where LCP may be located.
- 6. Air sampling will be conducted in accordance with 29 CFR 1926.62 and will consist of measurement of an 8-hour Time Weighted Average (TWA). Analysis of air sampling will be performed following NIOSH Method 7105. The IH shall collect the personal air sample(s) in the selected worker's "breathing" zone. Pumps and sample filters shall be worn full-shift by the selected workers.
- 7. At the completion of work in each work area, ECSI shall HEPA-vacuum equipment which may have LCP/paint chips on them and roll-up poly sheeting and place into a waste disposal bags labeled as containing lead waste. HEPA-vacuum any visible paint chips in work area.
- Workers shall remove and place used disposable suits into waste bag before proceeding to DF and decontaminate as required.
- Barrier tape and/or signs shall be removed once all work area controls are removed. Work area(s) shall be left in an improved condition of cleanliness.
- 10. Air sampling results will be reviewed against the OSHA PEL and Action Level. If results of valid testing are found to be below the OSHA PEL and Action Level, use of respiratory protection may be discontinued.
- 11. Should work practices or work conditions change substantially from the conditions under which the initial exposure assessment was performed, ECSI shall repeat the exposure assessment. While the re-testing is performed, workers involved in the testing shall be provided, and shall use, appropriate respiratory protection.

#### 4.2 EXPOSURE ASSESSMENT(S) DURING THE WORK

ECSI shall repeat exposure assessments at intervals deemed suitable by ECSI, but at least annually during the term of this contract. Air monitoring shall be performed following the requirements in 29 CFR 1926.62 and analysis of samples shall follow NIOSH Method 7082 or OSHA-approved alternate method.

#### 5.0 PERSONAL PROTECTIVE EQUIPMENT

The following personal protective equipment (PPE) shall be used by ECSI until a successful negative exposure assessment (NEA) to lead has been achieved. Eye protection (safety glasses) must be worn by Contractor personnel in any area where paint chips or other paint debris on ceiling tiles may be disturbed.

#### 5.1 DISPOSABLE PROTECTIVE SUITS

Personnel involved with performing the work and who may come into contact with LCP or paint chips shall perform the work while wearing full-body disposable suits with hoods and booties. Protective clothing shall be worn during all activities which may disturb LCP. Workers shall not wear disposable suits and disposable footware outside of work areas.

#### 5.2 SAFETY GLASSES/EYE PROTECTION

Workers shall wear ANSI-approved safety glasses with side shields for all LCP removal work in accordance with 29 CFR 1910.133. The ECSI shall make safety glasses available for all workers.

#### 5.3 RESPIRATORY PROTECTION

Furnish appropriate respirators approved by the National Institute for Occupational Safety and Health (NIOSH), Department of Health and Human Services, for use in atmospheres containing lead dust, fume and mist. Respirators shall comply with the requirements of 29 CFR 1926.62.

## 6.0 WORK AREA CONTROLS

For each work area where LCP may be disturbed, ECSI shall provide the following environmental controls. Work includes only the lower two floors of Mill West affected by recent sandblasting activities. As dust may contain

lead elements, ECSI will conduct cleaning as a RRP project.

#### 6.1 DELINEATION OF WORK AREA(S)

Work areas shall be identified and demarcated using standard yellow "Caution" tape or pre-approved floor signs. The extent of the work area shall be determined, in advance, by the Owner or Owner's representative and ECSI. The exterior metal doors shall be locked whenever personnel are away from the area on break or end of work day. When the metal door is open the interior decontamination passageway will be labeled with a sign that reads: Caution Lead Hazard Keep Out – Do Not Enter Authorized Personnel Only.

With the exception of emergency situations, all non-essential personnel shall be restricted from entering the work area by ECSI. Note that the work area is defined as the space demarcated with caution tape and/or floor signs. Persons working in a room/area outside of the limits of the work area do not need to evacuate the space.

#### WORK AREA CONTROLS

- Regulated areas shall be established for each area where cleanup of LCP will take place. Regulated areas shall include a remote decontamination facility and HEPA-exhaust machine to be installed and operated during the duration of the LCP cleanup work to minimize the amount of visible emissions.
- 2. ECSI shall perform routine cleaning of the space below the work using a HEPA-filter equipped vacuum.
- 3. For each work area, ECSI shall provide power sources which are protected with GFCIs.

#### 6.2 CLEAN-UP/DECONTAMINATION

- Upon completion of LCP cleanup work in a work area, ECSI shall visually inspect the area for any visible
  dust and/or areas missed during initial cleanup. Upon discovery of additional dust, ECSI shall properly clean
  and re-clean until the area is found acceptable.
- 2. ECSI shall HEPA-vacuum any other debris which has fallen (debris on poly sheeting shall be disposed of with the poly sheeting). Note that dry sweeping of any debris will not be allowed.
- ECSI shall clean all tools and equipment used during the work or used to access the ceiling (i.e. ladders, staging, etc.).
- Once all surfaces and equipment have been cleaned, ECSI shall fold the poly sheeting onto itself and dispose
  of in a waste bag.
- 5. At the completion of all work in the work area, ECSI shall remove barrier tape or signs used to demarcate the work area. Work areas shall be returned to their original condition (or better) and ECSI Foreman will perform a visual inspection to ensure the completion of all work tasks and the cleanliness of the work area.
- 6. In addition to visual assessment completed by ECSI, a 3<sup>rd</sup> party Risk Assessor will conduct a visual inspection and will conduct dust wipes to determine the finish levels of dust. ECSI will decontaminated and remove metal storage units as part of the cleanup efforts. The Risk Assessor will collect representative dust wipes to clear the material prior to removal. ECSI will restrict access to the public by utilizing poly sheeting to move the parts from the work area to the freight elevator. ECSI will clean areas in which materials have been moved.

#### 6.3 WASTE HANDLING AND DISPOSAL

ECSI shall provide a secure, locked container for the storage of waste generated during this project. All waste generated during this work shall be segregated from any other waste and shall be disposed of by ECSI.

Waste shall be tested for disposal requirements. Minimum testing shall include Toxicity Characteristic Leaching Procedure (TCLP) testing for leachable lead. TCLP testing results in excess of the 5.0 parts per million allowed under EPA regulations shall be disposed of at a waste facility permitted to accept lead waste. Results for TCLP testing below 5.0 ppm may be disposed of as general construction debris. **End.** 

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